



Results of the 2000 Nursery & Floriculture Chemical Usage Survey

(for the complete report, search on the keywords 'agricultural chemical usage' at www.usda.gov/nass/search.htm)

This report is the first issued by the National Agricultural Statistics Service on the use of agricultural chemicals on nursery and floriculture crops. The publication is part of a series on Agricultural Chemical Usage, which also provides statistics for on-farm chemical usage for field crops, fruits, livestock, and vegetables. NASS collects on-farm chemical use data to enhance the quality of information used in the evaluation of issues related to agricultural chemicals. Pest management data are used to measure Integrated Pest Management (IPM) adoption levels and evaluate the impact of alternative pesticide regulations, policies, and practices. This report includes all chemical use in calendar year 2000 related to the production of nursery and floriculture crops in six major producing states: California, Florida, Michigan, Oregon, Pennsylvania, and Texas. There were 2,190 reports (206,680 chemical applications) summarized for the 2000 Nursery and Floriculture Chemical Use Survey.

Chemical Use Highlights: There were 307 active ingredients reported as being used by nursery and floriculture operations in the six program states in 2000. A total of 5.36 million pounds of active ingredients were applied in the six Program States: California, Florida, Michigan, Oregon, Pennsylvania, and Texas. Other Chemicals (growth regulators, rooting compounds, fumigants, disinfectants, etc.) accounted for 31 percent (1.66 million pounds) of the total.

Fungicides accounted for 28 percent (1.53 million pounds) of the total; Insecticides - 24 percent (1.27 million pounds); and Herbicides - 17 percent (909 thousand pounds). Of the 428 thousand pounds of active ingredient applied to non-production areas, 62 percent were herbicides and 36 percent were in the "other chemicals" class.

The most commonly used chemicals by pesticide class within the production categories were as follows: All Nursery: Herbicides, glyphosate - 37 percent; Insecticides, acephate - 32 percent; Fungicides, chlorothalonil - 22 percent; and Other Chemicals, metaldehyde - 4 percent. Transplants for Commercial Truck Crop Production: Herbicides, glyphosate - 9 percent; Insecticides, acephate - 28 percent; Fungicides, copper hydroxide - 28 percent; and Other Chemicals, methyl bromide - 6 percent. Nursery Propagation or Lining Out Stock: Herbicides, glyphosate - 13 percent; Insecticides, acephate - 22 percent; Fungicides, thiophanate-methyl - 20 percent; and Other Chemicals, indolebutyric acid - 11 percent. Broadleaf Evergreens: Herbicides, oxyfluorfen - 20 percent; Insecticides, acephate - 45 percent; Fungicides, chlorothalonil - 21 percent; and Other Chemicals, hydrogen peroxide and metaldehyde - 4 percent each. Coniferous Evergreens: Herbicides, glyphosate - 26 percent; Insecticides, chlorpyrifos - 24 percent; and Fungicides, chlorothalonil - 14 percent.

**Pennsylvania: Active Ingredient - Total Applied
by Production Category and Pesticide Class, 2000 ¹**

Pesticide Class	Pesticide Class			
	All Nursery & Floriculture	All Nursery	Nursery Propagation or Lining Out Stock	Broadleaf Evergreens
	<i>1,000 Pounds</i>			
Herbicides	152.7	151.7	1.7	0.2
Insecticides	62.0	32.5	0.1	1.4
Fungicides	30.1	20.9	0.2	0.1
Other Chemicals	5.0	0.6	0.6	
All	249.8	205.8	2.5	1.6

¹ May not add due to rounding.

**Pennsylvania: Active Ingredient - Total Applied
by Production Category and Pesticide Class, 2000¹, Continued**

Pesticide Class	Pesticide Class			
	Coniferous Evergreens	Deciduous Shade Trees	Deciduous Flowering Trees	Deciduous Shrubs & Other Ornamentals
	<i>1,000 Pounds</i>			
Herbicides	6.6	103.4	0.3	3.1
Insecticides	3.2	8.0	0.1	1.2
Fungicides	2.6	1.3	0.1	0.3
Other Chemicals	*			*
All	12.3	112.7	0.4	4.6

Pesticide Class	Pesticide Class			
	Fruit and Nut Plants	Christmas Trees	All Floriculture	Cut Flowers
	<i>1,000 Pounds</i>			
Herbicides		36.5	1.0	0.2
Insecticides	0.5	18.2	29.4	0.3
Fungicides	0.1	16.4	9.1	0.2
Other Chemicals		*	4.5	*
All	0.7	71.0	44.0	0.7

Pesticide Class	Pesticide Class			
	Flowering Plants	Bedding Plants	Foliage Plants	Floriculture Propagation Material
	<i>1,000 Pounds</i>			
Herbicides	*	*		
Insecticides	2.1	1.8	0.2	0.1
Fungicides	2.5	2.8	*	0.1
Other Chemicals	2.5	1.9	*	*
All	7.1	6.5	0.2	0.2

Pesticide Class	Pesticide Class	
	Herbaceous Perennials	Non-production Areas
	<i>1,000 Pounds</i>	
Herbicides	0.8	10.3
Insecticides	25.0	*
Fungicides	3.5	0.1
Other Chemicals	0.1	52.6
All	29.3	63.0

* Total applied is less than 50 pounds.

¹ May not add due to rounding.